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SOLID WASTE CURBSIDE RECYCLING PILOT PROJECT

"Before" Study of Residents' Perceptions in the City of Edmonton

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EXECUTIVE SUMMARY

A representative telephone survey of residential households not living in apartment buildings was completed in the Pilot study areas of Clareview, Riverbend, and Rosslyn before the solid waste recycling pilot project of the City of Edmonton was fully in effect. Eight hundred and twenty-three (823) questionnaires were completed with a completion rate of 96%. Results are shown below under Pilot.

A representative telephone survey of residential households not living in apartment buildings was completed in the City of Edmonton excluding the Pilot study areas of Clareview, Riverbend and Rosslyn. Two hundred and twenty four (224)questionnaires were completed with a completion rate of 87%. Results are shown below under City.

The major opinions expressed were:

In your opinion, do you think that recycling is worthwhile?

Pilot - 91% thought that recycling is worthwhile.
City - 89% thought that recycling is worthwhile.

Pilot: Would you be willing to separate glass bottles, metal containers, and newspapers so that they can be collected separately if you were asked to do so?

Pilot - 84% expressed willingness to separate materials if asked.

City: To help a City-wide recycling program, would you be willing, if you were asked to remove advertising inserts and magazines from newspapers; to separate, remove lids, and rinse glass bottles and jars; to separate, remove lids, and rinse plastic bottles; to separate and rinse metal containers, tin cans?

City - 74% expressed willingness to separate newspapers,
City - 74% were positive on glass and plastic, and
City - 69% were positive on metal.

Pilot: Would you be willing to participate in recycling programs if home collections were established or if you took the material to a central collection point?

Pilot - 83% expressed willingness to participate in the recycling program.

City: Would you be willing to participate in a City-wide recycling program?

City - 66% expressed willingness to participate in a recycling program.

In your opinion, how important is recycling compared to garbage collection?

Pilot - 52% thought that recycling has the same importance as garbage collection.

City - 43% thought that recycling has the same importance as garbage collection.

Pilot: In your opinion, should recycling be mandatory? Should the program be set up so that everyone has to participate?

Pilot - 49% thought that recycling should be mandatory.

Do you think that recycling should be supported by your property-tax dollars?

Pilot - 46% thought that recycling should be supported by property-tax dollars.

City - 44% thought that recycling should be supported by property-tax dollars.

The levels of the City responses are all slightly lower than the Pilot study.

The levels of current practice with respect to recycling materials was indicated by:

Does anyone in your household ever separate materials from your residential garbage?

Pilot - 46% separate materials, always or sometimes.

City - 47% separate materials, always or sometimes.

Does anyone in your household separate newspapers for local community or church paper drives or other collections?

Pilot - 50% separate newspapers, always or sometimes.

City - 40% separate newspapers, always or sometimes.

Does anyone in your household already save glass jars?

Pilot - 68% save glass jars, always or sometimes.

City - 71% save glass jars, always or sometimes.

Does anyone in your household already save tin cans?

Pilot - 40% save tin cans, always or sometimes.

City - 44% save tin cans, always or sometimes.

Does anyone in your household already save any other scrap metal?

Pilot - 5% save any other scrap metal, always or sometimes.

City - 12% save any other scrap metal, always or sometimes.

Does anyone in your household usually rinse bottles, cans, etc. before putting them in the garbage?

Pilot - 34% wash out bottles and cans before putting them in the garbage.

City - 34% rinse bottles and cans before putting them in the garbage, always or sometimes.

The levels of the City responses with respect to recycling materials are similar to those of the Pilot study.

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1. INTRODUCTION

1.1 BACKGROUND

The City of Edmonton and Alberta Environment officially began a joint, one-year, curbside recycling pilot project on 07 October 1986 in three Edmonton communities. The pilot project is tne result of over 20 years of both governments' efforts in recycling and resource recovery. The Hon. Ken Kowalski, Minister of Environment and Mayor Laurence Decore of the City of Edmonton issued the following statement at a 26 September 1986 news conference on tne City of Edmonton on tne City of Edmonton-Alberta Environment Pilot Recycling Project:

> "To date, all efforts to develop an economically feasible resource recovery program have met with very limited success. But the City of Edmonton and Alberta Environment believe economic viability may no longer be the only or most important factor in recycling."

In conjunction with the pilot recycling project, a "before" and "after" study of residents' perceptions in the selected communities was established to ascertain residents' opinions, present activity, and willingness to participate in recycling glass, metal, and paper. In addition, a small "before" study of residents of the City of Edmonton, excluding tne three pilot areas (City Study), was established to ascertain if tneir opinions and willingness to participate in a possible City-wide recycling program differed in any significant way from that of the residents in the pilot areas. The "after" study will be complete at the end of the pilot recycling project.

Tne pilot recycling project has four objectives:

"1. To measure home owner participation and estimate long-term commitment;
2. To determine market viability;
3. To determine financial commitment for City-wide implementation; and
4. To determine citizen commitment to environmental benefits of recycling."

Three demograpnically representative areas of the city were selected for the pilot project using several criteria which included:

1. Areas should represent a nign assessment community, an older district and a recently-settled area;
2. Tnere should be a mixture of curb and lane collection areas;
3. Areas should be served by city collectors, not private contractors, to ensure direct control and assessment; and
4. Areas should represent a community with direct concerns about landfill siting.

In order to carry out both studies, several agencies were involved. A random sample of each pilot area and a random sample of the City excluding the pilot areas was selected through a computer program by the Population Research Laboratory, University of Alberta, from an abridged 1986 City of Edmonton Census Tape. Research Management Division, Alberta Environment provided study management, design, and analysis of data. Field supervision, interviewing, editing, and data entry was undertaken by MTK Research Associates Inc. of Edmonton, and the project was managed by Pollution Control Division, Alberta Environment.

The following report describes the methodology and study data of both Before studies. The Pilot study results are presented under the headings of Present Awareness of Garbage Collection, Present Practice of Separating Materials, General Willingness to Participate in Recycling, and Specific Views on Recycling in Part 2. Tables referred to in Part 2 are presented in Appendix A. The study results of the rest of the City are presented under similar headings in Part 3. The tables referred to in Part 3 are presented in Appendix B.

1.2 SAMPLING METHODOLOGY

Pilot Areas. The population of the "before" study of the Pilot areas was defined as residential households not living in apartment buildings in three selected communities in the City of Edmonton: Clareview, Riverbend and Rosslyn.

The sample size was determined by the size of the proportion of the population in each community holding a positive opinion on recycling. On this premise, sequential sampling was used with the following criteria:

1. The assumption that 90% of the population of each community selected holds a positive opinion on recycling would ensure a minimum number of interviews; and

2. Continuous monitoring of the results of the interviews as they are received from each community will indicate whether the results show variable proportions of opinion, or a lower proportion, in which case further sampling is continued until the proportion is consistent.

City. The population of the Before study of the rest of the City was defined as residential households not living in apartment buildings in the City of Edmonton excluding the three Pilot study communities of Clareview, Riverbend, and Rosslyn.

The sample size for the City was determined by the size of the proportion of the population in each community which participated in the City's Pilot Recycling Project. This proportion was not less than 70%.

These methodologies facilitate a minimum number of interviews and thereby reduce financial costs. It also ensures that regardless of the proportion of the population supporting recycling, we would be at least 90% confident that the study results would accurately reflect the opinions of the defined population in the three pilot areas or in the City excluding the three communities.

The population for the City was obtained from the 1986 City of Edmonton Census. A random sample of street addresses was generated via a computer program by the Population Research Laboratory, University of Alberta to provide sufficient sample size to allow for incorrect telephone numbers, unanswered telephones, and an estimated non-response rate of 20%. Telephone numbers were obtained from a June 1986 Street Address Reverse Telephone Directory.

1.3 QUESTIONNAIRE DESIGN

The questions used were based on the project objectives, and study findings from other parts of North America. The questions were ordered, revised, re-ordered, and reviewed by Z.D. (Zan) Figol, P.Eng., City of Edmonton; Tom Rogers, Pollution Control Division, Alberta Environment; and D.W. Stokes, Research Management Division, Alberta Environment. The draft questionnaire for the Pilot study contained 31 questions while that for the rest of the City contained 30 questions, all related to the objectives, plus questions on demographics, such as size of household, age, gender, education level, etc., which were known to influence peoples' views of the environment. The Pilot questionnaire was pretested by the City recycling collectors; the questionnaire for the rest of the City by MTK Research Associates Inc. Following pretesting, final revisions were made.

1.4 DATA COLLECTION

Pilot Areas. For the Pilot study, a resident 18 years of age and over, from each randomly selected household in each of the three communities was interviewed by telephone via a questionnaire during September-October, 1986.

The questionnaires were apportioned to each community and interviewing was started simultaneously in the three communities. This facilitated rapid data collection and completed the interviews before the City's pilot project came into effect.

Eight hundred and twenty-three (823) questionnaires were completed with a completion rate of 96%.

City. For the Before study of the rest of the City, a resident 18 years of age and over, from each randomly selected household in the City was interviewed by telephone via a questionnaire during May-June, 1987.

Two hundred and twenty-four (224) questionnaires were completed with a completion rate of 87%.

2. SURVEY RESULTS - PILOT STUDY

2.1 INTRODUCTION

The basic questionnaire contained 31 questions which were designed to fulfill the research objectives of the project. All except three of the questions were pre-coded on the basis of responses from an earlier pretest. The treatment of open responses is described under the appropriate question. Interviewers were instructed not to prompt responders with possible answers in order not to interfere with the basic research objective of obtaining the public's response. The preliminary results are presented below under the respective subheadings. The tables are shown in Appendix A.

2.2 PRESENT AWARENESS OF GARBAGE COLLECTION

Question 1: Who collects your household garbage; the City, your landlord, or some other agency?

After the interviewer had completed a prescribed introduction, this was the first general question used to focus the respondents' attention on their perceptions of present garbage collection. Overall, 89% of the respondents identified the City as their garbage collector, 4% identified other agencies, and 7% were in doubt (see Table 1, Appendix A). Looking at the breakdown by community, 97% of respondents from Rosslyn identified the City as collectors as compared to 88% of respondents in Clareview and 82% of those in Riverbend. Clareview contained the highest proportion identifying other sources of garbage collection (10%), and residents from Riverbend showed the greatest degree of uncertainty (14%).

Question 2: How often is your garbage collected?

Ninety-four percent (94%) identified frequency of garbage collection at once a week and this response was similar for each of the communities (see Table 2). Three percent of the respondents or less in each community was uncertain of the frequency of collection, and three percent reported collection twice a week.

Question 3: From where is your garbage collected?

Fifty-seven percent (57%) of the respondents said that garbage was collected from the back alley, and 34% of the respondents reported it to be collected from the street (see Table 3). The breakdown by community shows that in Rosslyn, the older district, garbage is collected from the back alley while in Riverbend, the proportion is approximately 2/3 back alley and 1/3 street. The majority of garbage collection in Clareview (79%) is reported to be collected from the street. Identification of the pickup location was something of a problem in townhouse complexes in Riverbend and Clareview.

Question 21: Is there anything you would like to say about garbage collection in the City?

Having discussed garbage collection and several aspects of recycling with the respondent through the questionnaire, the residents were given the opportunity to comment on the present system of garbage collection. They used the opportunity to comment on the quality of garbage collection in the City of Edmonton. All of the respondents' answers were recorded verbatim by the interviewers. The responses were then coded into the categories shown in Table 4.

Overall, the results are about equally divided between positive comments (41%) and neutral comments (44%) (see Table 4). However, these results may understate the positive as in several instances the response to the question was "No, I have no complaints" or "No, it's been excellent." This indicates something of a bias towards the negative view because no one responded "No, I have nothing positive to say" or "I have no commendations." The third highest level of overall responses were categorized as recommendations.

Within the overall results, there were some differences between communities. Residents from Riverbend showed the highest proportion of positive comments and the lowest proportion of neutral comments and recommendations. Rosslyn showed the lowest proportion of positive comments and the highest proportion of neutral comments, while Clareview, which fell between the other two communities on both positive and neutral comments, showed the highest proportion of recommendations.

2.3 PRESENT PRACTICE OF SEPARATING MATERIALS

Question 4: Do you (or your spouse) ever separate materials from your residential garbage?

Overall, 54% of respondents reported no separation of materials from their residential garbage (see Table 5). Those who did separate materials (46%) were equally divided between the categories of "always" and "sometimes" separated, and there was no significant difference between communities.

Question 5: Do you (or your spouse) separate newspapers for paper drives or other collections?

The overall result (see Table 6) shows that newspapers were not separated by 50% of the respondents, 30% always separated newspapers, and 20% sometimes separated newspapers. There is a notable difference in the proportion of respondents reporting separation of newspapers in Table 6 as opposed to separation of materials in Table 5. These differences are even more pronounced when the community differences are analyzed.

There are substantial differences between communities on the separation of newspapers. For example, the highest and lowest proportions of those who always separate newspapers were Rosslyn (44%) and Clareview (18%). The highest and lowest proportions of those who sometimes separate newspapers were Riverbend (25%) and Rosslyn (17%). The highest and lowest proportions of those who do not separate newspapers were Clareview (63%) and Rosslyn (40%).

Question 6(a): Do you (or your spouse) already save glass jars?

Overall, 32% of the respondents did not save glass jars, 46% sometimes save them, and 22% always save them (see Table 7). The proportions for "sometimes" and "no" saving categories differ from the results shown in Table 5. There is also increased variability between communities in following a different pattern from the response to Question 5. Although the communities show approximately the same proportions in sometimes saving glass jars, Clareview has the highest proportion in always saving them and Rosslyn has the highest proportion in not saving them.

Question 6(b): Do you (or your spouse) already save tin cans?

Overall, lower proportions of respondents save tin cans compared to glass jars: 16% always save them and 24% sometimes save them (see Table 8). Again, there is considerable variation between the communities. Rosslyn shows the highest proportion not saving tin cans (75%), Clareview, the highest proportion saving tin cans sometimes (40%), and Riverbend, the highest proportion always saving tin cans (22%).

Question 6(c): Do you (or your spouse) already save any scrap metal?

Table 9 shows that very low proportions (5%) saved any other scrap metal. There is a slight variation between the communities: Clareview shows the highest proportion always saving and sometimes saving other scrap metal, and Riverbend, the lowest proportion.

Question 7: Do you (or your spouse) use a garburator?

The overall result shown in Table 10, that 74% did not use a garburator and 23% always use a garburator, obscures the differences between communities. In both Rosslyn and Clareview, over 90% did not use garburators. In Riverbend, 52% always used garburators and 9% sometimes.

This raises a question whether a garburator is a feature found in houses built in certain communities.

Question 8: Do you (or your spouse) usually wash out bottles, cans, etc. before putting them in the garbage?

Overall, according to Table 11, 66% did not wash out bottles or cans, etc., 19% sometimes did, and 15% always did. The proportions of persons who do wash bottles, cans, etc. varies systematically between Riverbend, Rosslyn, and Clareview with the greatest proportion always washing and sometimes washing in Riverbend and the lowest proportion in Clareview.

2.4 GENERAL WILLINGNESS TO PARTICIPATE IN RECYCLING

Question 9: Would you be willing to participate in recycling programs if home collections were established or if you took the material to a central collection point?

Table 12 shows strong support overall to participate in home collection recycling programs (69%). An additional 11% would participate either in home collections or taking the material to a central collection point. There was very little support (2%) for only taking the material to a central collection point. Combined overall, 83% of the people surveyed in the three communities supported a recycling program in one form or another and 14% did not.

There is some variation between the communities. Respondents from Riverbend showed the highest overall support for home collection (79%), a combined collection method response of 86%, and the lowest negative response. Although Rosslyn showed the lowest proportion of response to home collection (62%), its combined response matched that of Clareview at 78%, and Rosslyn showed the highest negative response at 17%.

Question 10: Would you be willing to separate glass bottles, metal containers, and newspapers so that they can be collected separately if you were asked to do so?

The response to this question, both overall and by community, was slightly more positive than Question 9 on participation. Positive response was 84% overall (Table 13) and ranged between Riverbend at 86%, Rosslyn at 87%, and Clareview at 80%. Negative responses were also slightly reduced.

Question 11: [If perhaps] Would you please explain?

This was asked in order to determine the reasons for respondents hesitating to answer Question 10. The verbatim answers tabulated and coded for display in Table 14 show that the majority of respondents had personal doubts about a recycling program. When examined separately, each community expressed different concerns. The greatest proportion of Riverbend respondents expressed personal doubts, while the majority of Rosslyn

respondents deferred answering Question 10 by reason of a family situation. Clareview respondents were equally divided between personal doubts and doubts about the City. It is also interesting to note that the oldest community had the fewest number of respondents with doubts and that these doubts were personal concerning a family situation.

2.5 INFORMATION SPECIFIC FOR THE PILOT PROJECT

Question 12: In home collection, would it be more convenient if you were provided with a blue plastic container?

Eighty-three percent (83%) responded positively to this question and 15% negatively (see Table 15). There was a 5% variation between the communities with the highest positive response, in Riverbend, and the highest negative response in Clareview.

Question 13: If you got such a special container, where would you keep it?

Interviewers were able to explain the size of the container.

Table 16 shows considerable variation in answers to this question. Overall, 32% of the respondents indicated that they would keep it in their garage, 24% - in their backyard, and 9% - in their basement; 12% did not want a special container. Within the communities, in Riverbend, the greatest proportion would keep the container in their garage; in Rosslyn, responses were almost equally divided between the garage and the backyard; residents in Clareview favoured the backyard more than the garage. The place where such a container would be kept depends to some extent on the house design.

2.6 SPECIFIC VIEWS ON RECYCLING

Question 14: Do you think that recycling should be supported by your property-tax dollars?

Overall, the proportion of respondents with a positive response to this question is substantially reduced from Questions 9 and 10, which requested a general support of recycling. Referring to Table 17, 46% were positive towards the tax-dollar support of recycling, 27% were negative, 19% were conditional, and 8% did not know. The responses for each community differed by less than 5% from the overall responses, showing a remarkable consistency considering the basis of selection for the communities.

Those who responded positively to this question were asked the following:

Question 15: If yes, how much do you think it is worth?

Of the 46% who responded positively (Table 18), 21% responded that $5 per month in tax dollars should be spent on recycling, 21% - less than $5 per month, and 14% - $1 or less. About 10% reported they did not know what amount should be spent, and 25% gave a non-specific answer. The responses for each

community differed by less than 5% from the overall responses, except for the higher proportion of undecided respondents in Clareview.

Question 16: In your opinion, should recycling be mandatory? Should the program be set up so that everyone has to participate?

The results of this question show a slightly higher positive response for mandatory recycling than Question 14 on property-tax support. Overall, 49% were in favour, 41% were not in favour, while "other" and "don't know" categories took up 5% each (see Table 19). Differences between communities were 6% or less than the overall result, with Rosslyn being most in favour of mandatory recycling and Clareview most opposed to it.

Question 17: In your opinion, who should operate the recycling program?

Overall, 47% of the respondents were in favour of the City operated recycling program. 29% favoured industry (a ratio of about one and one-half to one). The next two highest categories were 11% from the "don't know" group and 10% in favour of a non-profit corporation (see Table 20).

The differences between communities are greater on this question than Question 16. Rosslyn showed the highest proportion in favour of the City recycling (55%) and least support for industry. Conversely, Riverbend residents showed the greatest level of support for industry operating recycling (32%) and the lowest level for the City (40%).

Question 18: In your opinion, do you think that recycling is worthwhile?

The response to this question was overwhelming: 91% (Table 21) responded positively, only 2% were negative, 3% had reservations and 4% said they did not know. There is a 2% difference in responses between the communities when compared to the overall results.

Question 19: Would you please tell me why you think it is worthwhile?

This question gives an indication of the kinds of topics people associate with recycling.

Respondents were given the opportunity to provide three answers to this question. The answers were recorded verbatim by the interviewers, and directly entered into the computer. One hundred and fifty responses were reviewed and coded, and then grouped into eight categories. Tables 22 to 24, with the first response in Table 22 and the third in Table 24, show the results.

Referring to Table 22, overall, the largest response was that recycling would reduce garbage and/or garbage dumps (19%). The second highest response - 17% - was that recycling reduces waste, and the third highest

response - 17% - responded that recycling had economic benefits. The overall pattern is similar to the responses from residents in Rosslyn, but differs from the other two areas. The top three responses in Riverbend were: recycling would reduce garbage and/or garbage dumps; recycling reduces waste; and recycling saves natural resources. The pattern of responses in Clareview gave the same first choice, but the second focussed on the economic benefits of recycling, and the third was a general appreciation of recycling. It is also notable that there was considerable variation in responses under certain categories between the different communities. For example, the view that recycling is generally worthwhile was highest in Clareview and lowest in Riverbend, and the view that recycling saves natural resources was highest in Riverbend and lowest in Clareview.

Table 23 shows the second reason why recycling is worthwhile: 47% of positive respondents to Question 18 failed to provide a second answer in Question 19. Overall, there were two clear response categories: recycling would reduce garbage and/or garbage dumps (14%), and recycling has economic benefits (12%). A similar or higher emphasis is observed when looking at the differences between communities.

A third reason for recycling was provided by 14% of positive respondents, tabulated in Table 24. Overall, the emphasized response was that recycling would reduce garbage and/or garbage dumps, and that recycling is economically beneficial was repeated. The breakdown by communities is relatively meaningless because of the small absolute frequencies in the cells of the table.

Question 19: Would you please tell me why you think it is not worthwhile?

Two percent (2%) of the 823 respondents responded negatively to the question: do you think that recycling is worthwhile? Their answers were processed and tabulated in a similar fashion to the positive responses in Table 25. The majority of responses fell under the heading "recycling is generally not worthwhile", and the second highest proportion is under the heading that "recycling was not economically beneficial". Absolute numbers within the cells of the Table preclude community comparison.

Question 19: Would you please tell me why you have another response?

The responses to this question which were treated in the same fashion as the positive and negative responses are shown in Table 16. Sixty-seven percent (67%) of the overall respondents indicated they needed more information to make a judgement, while a minority, 16%, referred to certain types of economic conditions. The overall result is similar for each of the communities. The number of respondents for the second and third answer are too few to analyze meaningfully.

Question 20: In your opinion, how important is recycling compared to garbage collection?

Referring to Table 27, overall results show that 52% thought that recycling has the same importance as garbage collection, 31% thought it had less importance than garbage collection, and 13% thought it had more importance than garbage collection. Although there is a 6% variation between the communities compared to the overall result, the overall pattern of response is the same.

3. SURVEY RESULTS - CITY STUDY

3.1 INTRODUCTION

The basic questionnaire contained 30 questions which were designed to fulfill the research objectives of the project. All except six of the questions were pre-coded on the basis of responses from the Pilot study. The treatment of open (non-pre-coded) responses is described under the appropriate question. Interviewers were instructed not to prompt responders with possible answers in order not to interfere with the basic research objective of obtaining the publics' response. The preliminary results are presented below under the respective subheadings. The tables are shown in Appendix B.

3.2 PRESENT AWARENESS OF GARBAGE COLLECTION

Question 1: Who collects your household garbage; the City, your landlord, or some other agency?

After the interviewer had completed a prescribed introduction, this was the first general question used to focus the respondents' attention on their perceptions of present garbage collection. Referring to Table 1 Appendix B, the column labelled City shows the responses for the City study, and the column labelled Pilot shows the results of the Pilot study of the three areas. For purposes of comparison, only differences greater than 10% are considered to be meaningful. In the City, 77% of the respondents identified the City as their garbage collector, 15% identified other agencies, and 8% were in doubt. The Pilot results differed by 12% fewer identifying the City as the collector and 11% more identified others. These are meaningful differences which probably reflect the actual differences in collectors.

Question 2: How often is your garbage collected?

According to Table 2, 90% of the City respondents identified frequency of garbage collection at once a week and this response was similar to the Pilot study. Small percentages of the respondents in the City and the Pilot were uncertain of the frequency of collection, and collection twice a week.

Question 3: From where is your garbage collected?

In Table 3, 70% of the City respondents identified that garbage was collected from the back alley, and 24% that it was collected from the street. The first result is meaningfully different from that of the Pilot study and probably reflects differences in collecting practices and the existence of back alleys.

Question 34: Is there anything you would like to say about garbage collection in the City?

Having discussed garbage collection and several aspects of recycling with the respondent through the questionnaire, this was the final question after the questions on demographics. Question 34 obtained a voluntary comment on the present system of garbage collection. The response to this question is interesting because the respondents used the opportunity to make some comment about the quality of garbage collection in the City of Edmonton. All of the respondents' answers were recorded verbatim by the interviewers. The responses were then coded into the categories shown in Table 4.

Referring to Table 4, the City results are about equally divided between positive comments (39%) and neutral comments (39%). However, these results may understate the positive view that residents have of garbage collection in the City. In several instances the response to the question was "No, I have no complaints" or "No, it's been excellent." This appears to indicate something of a bias towards the negative view because no one responded, "No, I have nothing positive to say" or "I have no commendations." The third highest area of overall response was categorized as recommendations. There were no meaningful differences between these results and those of the Pilot study.

3.3 PRESENT PRACTICE OF SEPARATING MATERIALS

Question 4: Does anyone in your household ever separate materials from your residential garbage?

Referring to Table 5, 54% of City respondents identified no separation of materials from their residential garbage, 34% always separate materials and 13% sometimes separate them. The meaningful difference in the results between City and Pilot respondents is attributed to the focus of Question 4 in the Pilot study which was on "you (or your spouse)" rather than "anyone in your household". A similar change in the focus of Questions 5, 6, and 7 did not produce a consistent, meaningful increase in City responses (Tables 6 though 11). The only exception occurred in saving glass jars and tin cans (Questions 6(a) and (b), Tables 7 and 8).

Question 5: Does anyone in your household separate newspapers for local community or church paper drives or other collections?

The City results in Table 6 show that newspapers were not separated by 60% of the respondents, 28% always separated newspapers, and 12% sometimes separated newspapers. This is not meaningfully different from the Pilot result.

Question 6(a): Does anyone in your household already save glass jars?

Referring to the City results in Table 7, 50% of the respondents always save glass jars, 21% sometimes save them, and 29% do not save them. The City results for those who always save glass jars is meaningfully higher

than the Pilot study response and is correspondingly lower for those who sometimes save them. The saving of glass jars is the highest saving activity reported among materials, newpapers, glass jars, tin cans, and other scrap metal for both the Pilot study and the City.

Question 6(b): Does anyone in your household already save tin cans?

Referring to Table 8, lower proportions of City respondents save tin cans compared to glass jars: 34% always save them and 10% sometimes save them. The proportion of City respondents who always save tin cans is meaningfully higher than the Pilot respondents. The proportion of City respondents who sometimes save tin cans is correspondingly lower.

Question 6(c): Does anyone in your household already save any other scrap metal?

Table 9 shows that very low proportions (12%) of City respondents save any other scrap metal always or sometimes. There is no meaningful difference with the Pilot study results.

Question 7: Does anyone in your household use a garburator?

In Table 10, 80% in the City do not use a garburator and 19% always use a garburator. This is not meaningfully different from the Pilot study result but analysis of the Pilot study indicates that garburators may be a feature of houses built in certain communities.

Question 8: Does anyone in your household usually rinse bottles, cans, etc. before putting them in the garbage?

According to the City results in Table 11, 67% did not rinse bottles or cans, etc., 15% sometimes did, and 19% always did. This is not meaningfully different from the Pilot study.

3.4 GENERAL WILLINGNESS TO PARTICIPATE IN RECYCLING

Question 9: Would you be willing to participate in a City-wide recycling program?

In the Pilot study, this question was asked as follows: Would you be willing to participate in recycling programs if home collections were established or if you took the material to a central collection point? The results of this question are shown in Table 12 under Pilot. Sixty-nine percent (69%) responded positively to home collection and a further 11% to either method, indicating a total positive response to home collection of 80%. The question asked in the City study was simplified and focussed on a City-wide recycling program. The positive response was 66%, meaningfully less than the total Pilot response. This was compensated by a meaningfully increased 'other' response. 'No' and 'other' responses were further explored in the City study by Question 10.

Question 10: [If no or other] Would you please explain why?

The results of this question were broken down by the 'no' or 'other' responses to Question 9 (Table 13) and contain an interesting finding. The greatest proportion of people answered 'no' for family reasons whereas the greatest proportion of people answered 'other' for reasons of personal doubt. The implication of this finding is that people who will not participate for family reasons have to be accommodated by the proposed recycling program either through a change in the collection procedure or through some specific demonstration of how the existing procedure can be adapted to their family situation. Those who have personal doubts may be reassured by adaptive educational and publicity promotions that do not require changes in the collection procedures.

Question 11: If a City-wide recycling program were established, would the following types of service be acceptable: (a) a home collection service where you are provided with a blue plastic container; (b) an automatic collection service which empties a larger recycling container shared with your neighbour; (c) taking your recyclables to a container located on your block?

Certain aspects of this question discussed under Question 9 (Table 12) were asked in the Pilot study. Those results are not comparable to the results of the question asked in the City study as the respondents were given much more information with which to make a choice. Respondents favour home collection nearly twice as much as the other two alternatives (Table 14). Their response to the other alternatives is almost equally divided betwen yes and no.

Question 12: If a City-wide recycling program were established, how long do you think it should run?

More than half of the City respondents (Table 15) favour a permanent recycling program (the question was not asked in the Pilot study), and over one-third favour a shorter duration between not at all and 10 years.

Question 13(a): To help a City-wide recycling program, would you be willing, if you were asked to remove advertising inserts and magazines from newspapers?

Respondents in the Pilot survey were asked: Would you be willing to separate glass bottles, metal containers, and newspapers so that they can be collected separately if you were asked to do so? The Pilot study response was 84% positive (Table 16) which was 10% higher than the City response to this question and 10% higher than the response to any part of Question 13 in the City study. The general question in the Pilot study obtained a higher response than Question 13 in the City study which provided more details of what was required.

Question 13: To help a City-wide recycling program, would you be willing, if you were asked: (b) to separate, remove lids, and rinse glass bottles and jars; (c) to separate, remove lids, and rinse plastic bottles; (d) to separate and rinse metal containers, tin cans?

Responses to this question in the City study were 74% positive for glass and plastic and 69% positive for metal (Table 17).

Question 14 was asked to determine the reasons for respondents hesitating to answer Question 13.

Question 14: [If other] Would you please explain?

The responses to this question are listed in Table 18 by the reason given and the type of recyclable. Twenty-five reasons were given by 17 respondents. Three respondents accounted for eight reasons (willing to separate but not rinse) under glass, plastic, and metal. One respondent accounted for two responses questioning the value of the recycling program. When the respondents who do not have materials are set aside, the remaining responses suggest some areas where public education may be effected.

Question 15: What other materials do you think should be recycled? What are they?

In the City study only, 32% responded to this question, most respondents gave one material. The materials were sorted by type of material and are listed below.

Paper - paper, bags, catalogues, flyers, glossy paper, telephone books, magazines.

Cardboard - cardboard, cardboard boxes, cereal boxes, detergent boxes, milk cartons, juice cartons.

Plastics - plastics, retail store bags, containers, shampoo bottles, food containers, egg cartons, meat wrap, bread bags, toys, packaging material, styrofoam.

Metals - metals, autos, auto wrecks, scrap metal, iron, steel, aluminum plates, foil, aerosol cans, oil cans.

Fabrics - fabrics, clothing, rags, bedsheets, mattresses, wool, disposable diapers.

Wood - wood, fence posts.

Organics - organics, kitchen garbage, vegetable peelings, leaves, trees, grass, dandelions, clay and dirt from landscaping, rubber, tires.

Hazardous - hazardous items, oil, oil spills, oil from home changes, solvents.

Other - shoes, appliances, utensils, furniture, bedframes, broken glass, wet garbage, dry garbage.

Question 16: In home collection, if you were provided with a blue plastic container, where would you keep it?

When asking this question, interviewers were able to explain the size of the container if requested.

Table 19 shows considerable variation in the City responses, by comparison, to Pilot responses. For the City study, 38% of the respondents indicated they would keep it in their backyard; 30% in their garage; and 7% in their kitchen. The backyard response is meaningfully different from that of the Pilot study. As the place where such a container would be kept is to some extent a function of house design, or may be determined by the garbage pick-up location, it would be informative to know the proportions of pick-up locations from actual City collections.

3.5 SPECIFIC VIEWS ON RECYCLING

Question 17: Do you think that recycling should be supported by your property-tax dollars?

The proportion of respondents in the City study with a positive response is substantially reduced from Questions 9 and 13 which requested a general support of recycling. Referring to Table 20, 44% were positive towards the tax-dollar support of recycling, 40% were negative, and 17% were conditional. The negative response is meaningfully higher than the Pilot result.

Question 18: If yes, how much do you think it is worth?

Of the 44% in the City study (Table 20) who responded positively, Table 21 shows 33% responded that $5 per month in tax dollars should be spent on recycling, 21% at less than $5 per month, and 24% at $1 or less, while 25% gave a non-specific answer. The City result was meaningfully higher than that of the Pilot study for both $5 per month and $1 or less categories. The City responses to both questions 17 and 18 are more polarized than the responses in the Pilot study.

Question 19: In your opinion, who should operate the recycling program?

According to Table 22, 37% of the respondents to the City study were in favour of the City operating the recycling program, while 29% favoured industry operation. The next highest category was 13% in favour of a

non-profit corporation. The result favouring the City as the recycling operator is almost meaningfully less than the Pilot study result. Moreover, a greater proportion of City study respondents favoured another alternative (e.g., a combined 46% favoured Provincial Government, Non-profit corporation and Industry) compared to City operation (37%). The proportion favouring the City in the Pilot study was a clear majority.

Question 20: In your opinion, do you think that recycling is worthwhile?

The response to this question was overwhelming, 89% (Table 23) responded positively, only 5% were negative, and 7% had reservations. The results were similar to those of the Pilot study.

The quality of response to this question may be obtained from responses to the next question which gives an indication of the kinds of topics people associate with recycling.

Question 21: Would you please tell me why you think it is worthwhile?

Respondents were given the opportunity to provide three answers to this question in the Pilot study. In view of the greatly reduced number of second and third answers in that study, it was decided to limit the responses in the City study to the first one. The responses were coded from the code established in the Pilot study. The coded responses were grouped into eight categories, and these are shown in Table 24.

Referring to the City results in Table 24, the two largest responses (25%) were that recycling was generally worthwhile and will reduce garbage and/or garbage dumps. The next hignest response, (18%), indicated that recycling had economic benefits.

When the City results are compared to those of the Pilot study, there is a fairly close agreement that recycling reduces garbage and/or garbage dumps and has economic benefits. The City result is meaningfully greater for recycling being generally worthwhile and meaningfully lower for recycling reducing waste. Such differences may be attritubable to the publicity surrounding the Pilot project. But if that is a reasonable assumption, it may be equally asserted that the lower levels of support for recycling in the City results is also attributable to the same publicity. This means that people may be becoming more knowledgeable and understanding about the need for recycling but are not being persuaded to change their orientation towards it.

Question 21: Would you please tell me why you think it is not worthwhile?

Five percent (5%) of 224 respondents in the City study responded negatively to the question: do you think that recycling is worthwhile? Their answers in response to the subject question were processed and tabulated in a similar fashion to the positive responses. Referring to Table 25, the

majority of responses fell under the heading recycling is in general not worthwhile, a similar response to that of the Pilot study. The small numbers within the cells of the Table preclude further comparison.

Question 21: Would you please tell me why you have another response?

The responses to this question were treated in the same fashion as the positive and negative responses. The result of the coding is shown in Table 26. Forty-seven percent (47%) of the City respondents indicated they needed more information to make a judgment, while a minority, 27%, referred to certain types of economic conditions. The City result is reflected in similar results for the Pilot study. The number of respondents in each category is too few to make meaningful comparisons.

Question 22: In your opinion, how important is recycling compared to garbage collection?

Referring to Table 27, the City results show that 43% thought that recycling has the same importance as garbage collection and 28% thought it had more importance than garbage collection while 27% thought it had less importance than garbage collection. The City response that recycling is more important than garbage collection is meaningfully greater than the response in the Pilot study.

APPENDIX A

PILOT STUDY

Tables 1 to 27

Table 1. Who Collects Garbage?

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
City	228	82	283	97	222	88	733	89
Other	11	4	1	0	24	10	36	4
Don't Know	40	14	7	2	7	3	54	7
Column Total	279	100	291	100	253	100	823	100

Table 2. How Often Garbage is Collected

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
Once a week	261	94	276	95	235	93	772	94
Twice a week	8	3	6	2	12	5	26	3
> Twice a week	3	1	0	0	1	0	4	1
Don't Know	7	3	9	3	5	2	21	3
Column Total	279	100	291	100	253	100	823	100

Table 3. From Where Garbage is Collected

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
Back alley	159	57	287	99	21	8	467	57
Street	76	27	4	1	199	79	279	34
Building	9	3	0	0	1	0	10	1
Other	35	13	0	0	32	13	67	8
Column Total	279	100	291	100	253	100	823	100

Table 4. Voluntary Comments on Garbage Collection

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
Positive	148	53	89	31	102	40	339	41
Specific compliments	1	0	2	1	3	1	6	1
Neutral	90	32	158	54	116	46	364	44
Negative	11	4	5	2	4	2	20	2
Specific problems	5	2	14	5	4	2	23	3
Recommendations	19	7	21	7	22	9	62	8
Recycling Recs.	3	1	1	0	0	0	4	2
Other reasons	2	1	1	0	2	1	5	1
Column Total	279	100	291	100	253	100	823	100

Table 5. Separating Materials from Garbage

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
Yes, always	62	22	63	22	61	24	186	23
Yes, sometimes	68	24	63	22	60	24	191	23
No	147	53	165	57	132	52	444	54
Don't Know	2	1	0	0	0	0	2	0
Column Total	279	100	291	100	253	100	823	100

Table 6. Separating Newspapers from Garbage

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
Yes, always	72	26	127	44	46	18	245	30
Yes, sometimes	70	25	48	17	48	19	166	20
No	137	49	116	40	159	63	412	50
Column Total	279	100	291	100	253	100	823	100

Table 7. Already Saving Glass Jars

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
Yes, always	65	23	39	13	80	32	184	22
Yes, sometimes	119	43	137	47	121	48	377	46
No	95	34	115	40	52	21	262	32
Column Total	279	100	291	100	253	100	823	100

Table 8. Already Saving Tin Cans

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
Yes, always	61	22	21	7	45	18	127	16
Yes, sometimes	43	15	53	18	100	40	196	24
No	175	63	216	75	108	43	499	61
Column Total	279	100	290	100	253	100	822	100

Table 9. Already Saving Other Scrap Metal

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
Yes, always	4	1	3	1	7	3	14	2
Yes, sometimes	3	1	11	4	13	5	27	3
No	272	98	276	95	233	92	781	95
Column Total	279	100	290	100	253	100	822	100

Table 10. Using Garburator

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
Yes, always	146	52	21	7	19	8	186	23
Yes, sometimes	25	9	6	2	0	0	31	4
No	108	39	264	91	234	93	606	74
Column Total	279	100	291	100	253	100	823	100

Table 11. Usually Washing Out Bottles, Cans, etc.

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
Yes, always	57	20	39	13	31	12	127	15
Yes, sometimes	57	20	57	20	41	16	155	19
No	165	59	195	67	181	72	541	66
Column Total	279	100	291	100	253	100	823	100

Table 12. Willing to Participate in Recycling Program

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
Home collections	221	79	181	62	169	67	571	69
Central collection	6	2	7	2	4	2	17	2
Either	20	7	45	16	27	11	92	11
No	26	9	48	17	37	15	111	14
Other	3	1	5	2	8	3	16	2
Don't know	3	1	5	2	8	3	16	2
Column Total	279	100	291	100	253	100	823	100

Table 13. Willing to Separate Collectibles from Garbage

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
Yes	240	86	252	87	203	80	695	84
Perhaps	15	5	5	2	17	7	37	5
No	24	9	34	12	33	13	91	11
Column Total	279	100	291	100	253	100	823	100

Table 14. Reasons for "Perhaps"

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
Family situation	1	7	4	80	3	18	8	22
Personal doubts	12	80	1	20	7	41	20	54
Depends on City	2	13	0	0	6	35	8	22
Don't know	0	0	0	0	1	6	1	3
Column Total	15	100	5	100	17	100	37	100

Table 15. Is a Plastic Container Convenient?

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
Yes	235	84	243	84	201	79	679	83
No	37	13	41	14	48	19	126	15
Other	7	3	7	2	3	1	17	2
Don't know	0	0	0	0	1	0	1	0
Column Total	279	100	291	100	253	100	823	100

Table 16. Where Container Would be Kept

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
Don't want it	26	9	34	12	36	14	96	12
Kitchen	16	6	14	5	16	6	46	6
Basement	18	7	26	9	33	13	77	9
Garage	124	44	83	29	55	22	262	32
Balcony	2	1	0	0	2	1	4	1
Back yard	48	17	79	27	73	29	200	24
Other - outside	20	7	35	12	18	7	73	9
Other - inside	22	8	19	7	13	5	54	7
Don't know	3	1	1	0	6	2	10	1
Column Total	279	100	291	100	252	100	822	100

Table 17. Property Tax Support for Recycling

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
Yes	126	45	130	45	122	48	378	46
No	64	23	92	32	68	27	224	27
Other	65	23	51	18	36	14	152	19
Don't know	24	9	18	6	27	11	69	8
Column Total	279	100	291	100	253	100	823	100

Table 18. Property Tax Value of Recycling

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
$5 per month	23	18	31	24	26	21	80	21
> $5 per month	5	4	5	4	7	6	17	5
< $5 per month	28	22	27	21	24	20	79	21
$1 or less	18	14	21	16	14	12	53	14
No increase	10	8	0	0	2	2	12	3
Other	34	27	34	26	28	23	96	25
Don't know	8	6	12	9	21	17	41	11
Column Total	126	100	130	100	122	100	378	100

Table 19. Should Recycling be Mandatory?

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
Yes	122	44	157	54	126	50	405	49
No	117	42	110	38	110	44	337	41
Other	27	10	7	2	9	4	43	5
Don't know	13	5	17	6	8	3	38	5
Column Total	279	100	291	100	253	100	823	100

Table 20. Who Should Operate Recycling Program?

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
City	111	40	160	55	112	44	383	47
Provincial Govt.	6	2	14	5	9	4	29	4
Non-profit Corp.	29	10	22	8	35	14	86	10
Industry	89	32	53	18	62	25	204	25
Other	7	3	7	2	7	3	21	3
Combination	7	3	3	1	1	0	11	1
Don't know	30	11	32	11	27	11	89	11
Column Total	279	100	291	100	253	100	823	100

Table 21. Is Recycling Worthwhile?

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
Yes	252	90	260	89	235	93	747	91
No	2	1	10	3	6	2	18	2
Other	12	4	7	2	5	2	24	3
Don't know	13	5	14	5	7	3	34	4
Column Total	279	100	291	100	253	100	823	100

Table 22. Recycling is Worthwhile: 1st Answer

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
Generally worthwhile	13	5	29	11	43	18	85	11
Economic benefits	32	13	49	19	44	19	125	17
Saves natural resources	37	15	18	7	13	6	68	9
Reduces waste	48	19	44	17	36	15	128	17
Materials are valuable	29	12	40	15	24	10	93	12
Reduces garbage/dumps	52	21	47	18	45	19	144	19
Improves environment	29	12	19	7	20	9	68	9
Other	12	5	14	5	9	4	35	5
No reply	0	0	0	0	1	0	1	0
Column Total	252	100	260	100	235	100	747	100

Table 23. Recycling is Worthwhile: 2nd Answer

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
Generally worthwhile	10	4	13	5	7	3	30	4
Economic benefits	36	14	29	11	27	12	92	12
Saves natural resources	12	5	13	5	7	3	32	4
Reduces waste	17	7	14	5	10	4	41	6
Materials are valuable	23	9	12	5	9	4	44	6
Reduces garbage/dumps	48	19	32	12	24	10	104	14
Improves environment	18	7	12	5	11	5	41	6
Other	4	2	6	2	5	2	15	2
No reply	84	33	129	50	135	57	348	47
Column Total	252	100	260	100	235	100	747	100

Table 24. Recycling is Worthwhile: 3rd Answer

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
Generally worthwhile	1	0	3	1	1	0	5	1
Economic benefits	9	4	6	2	3	1	18	2
Saves natural resources	7	3	1	0	1	0	9	1
Reduces waste	3	1	2	1	6	3	11	2
Materials are valuable	6	2	4	2	0	0	10	1
Reduces garbage/dumps	12	5	10	4	2	1	24	3
Improves environment	8	3	6	2	5	2	19	3
Other	2	1	3	1	5	2	10	1
No reply	204	81	225	87	212	90	651	86
Column Total	252	100	260	100	235	100	747	100

Table 25. Recycling is NOT Worthwhile: 1st Answer

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
General	1	50	5	50	2	33	8	44
Economics	1	50	2	20	2	33	5	28
Natural resources	0	0	1	10	0	0	1	6
Other	0	0	2	20	0	0	2	11
No reply	0	0	0	0	2	33	1	11
Column Total	2	100	10	100	6	100	18	100

Table 26. 'Other' Answers on Recycling Worthwhile

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
Participation	1	4	3	14	1	8	5	9
Economic conditions	5	20	2	10	2	17	9	16
Natural resources	0	0	0	0	1	8	1	2
Personal	1	4	0	0	0	0	1	2
Other	2	8	1	5	0	0	3	5
Information problems	16	64	15	71	8	67	39	67
Column Total	25	100	21	100	12	100	58	100

Table 27. Importance of Recycling Compared to Garbage Collection

	Riverbend		Rosslynn		Clareview		Overall	
	#	%	#	%	#	%	#	%
Less important	104	37	72	25	77	31	253	31
More important	31	11	37	13	35	14	103	13
Same importance	136	49	169	58	125	50	430	52
Other	2	1	4	1	1	0	7	1
Don't know	6	2	9	3	13	5	28	3
Column Total	279	100	291	100	251	100	821	100

APPENDIX B

CITY STUDY

Tables 1 to 27

Table 1. Who Collects Garbage?

	City		Pilot	
	#	%	#	%
City	173	77	733	89
Other	34	15	36	4
Don't Know	17	8	54	7
Column Total	224	100	823	100

Table 2. How Often Garbage is Collected

	City		Pilot	
	#	%	#	%
Once a week	201	90	772	94
Twice a week	12	5	26	3
> Twice a week	0	0	4	1
Don't Know	9	4	21	3
Column Total	222	100	823	100

Table 3. From Where Garbage is Collected

	City		Pilot	
	#	%	#	%
Back alley	156	70	467	57
Street	53	24	279	34
Building	4	2	10	1
Other	10	5	67	8
Column Total	223	100	823	100

APPENDIX B

CITY STUDY

Tables 1 to 27

Table 1. Who Collects Garbage?

	City		Pilot	
	#	%	#	%
City	173	77	733	89
Other	34	15	36	4
Don't Know	17	8	54	7
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	City		Pilot	
	#	%	#	%
Back alley	156	70	467	57
Street	53	24	279	34
Building	4	2	10	1
Other	10	5	67	8
Column Total	223	100	823	100

Table 4. Voluntary Comments on Garbage Collection

	City		Pilot	
	#	%	#	%
Positive	88	39	339	41
Specific compliments	1	0	6	1
Neutral	87	39	364	44
Negative	9	4	20	2
Specific problems	9	4	23	3
Recommendations	24	11	62	8
Recycling Recs.	1	0	4	2
Other reasons	5	2	5	1
Column Total	224	100	823	100

Table 5. Separating Materials from Garbage

	City		Pilot	
	#	%	#	%
Yes, always	75	34	186	23
Yes, sometimes	28	13	191	23
No	121	54	444	54
Don't Know	0	0	2	0
Column Total	224	100	823	100

Table 6. Separating Newspapers from Garbage

	City		Pilot	
	#	%	#	%
Yes, always	63	28	245	30
Yes, sometimes	27	12	166	20
No	134	60	412	50
Column Total	224	100	823	100

Table 7. Already Saving Glass Jars

	City		Pilot	
	#	%	#	%
Yes, always	112	50	184	22
Yes, sometimes	48	21	377	46
No	64	29	262	32
Column Total	224	100	823	100

Table 8. Already Saving Tin Cans

	City		Pilot	
	#	%	#	%
Yes, always	76	34	127	16
Yes, sometimes	23	10	196	24
No	125	56	499	61
Column Total	224	100	822	100

Table 9. Already Saving Other Scrap Metal

	City		Pilot	
	#	%	#	%
Yes, always	16	7	14	2
Yes, sometimes	10	5	27	3
No	198	88	781	95
Column Total	224	100	822	100

Table 10. Using Garburator

	City		Pilot	
	#	%	#	%
Yes, always	42	19	186	23
Yes, sometimes	3	1	31	4
No	179	80	606	74
Column Total	224	100	823	100

Table 11. Usually Rinsing Bottles, Cans, etc.

	City		Pilot[1]	
	#	%	#	%
Yes, always	42	19	127	15
Yes, sometimes	33	15	155	19
No	149	67	541	66
Column Total	224	100	823	100

[1]In the Pilot survey, respondents were asked if they 'washed' bottles, etc. rather than 'rinsed' them.

Table 12. Willing to Participate in Recycling Program

	City		Pilot	
	#	%	#	%
Yes	147	66	571	69
Central collection			17	2
Either			92	11
No	38	17	111	14
Other	38	17	16	2
Don't know	1	0	16	2
Column Total	224	100	823	100

Table 13. Why respondents would not participate

	Total		No		Other	
	#	%	#	%	#	%
Family reason	28	37	25	66	3	8
Personal doubts	38	50	9	24	29	76
Travel related	7	9	4	10	3	8
Personal	1	1			1	3
Don't know	2	3			2	5
Column Total	76	100	38	100	38	100

Table 14. Type of Collection Respondents were Willing to Accept

	Home		Automatic		Block	
	#	%	#	%	#	%
Yes	195	87	106	47	108	48
No	25	11	109	49	100	45
Other	4	2	9	4	16	7
Column Total	224	100	224	100	224	100

Table 15. How Long should the Program Run?

	City	
	#	%
Not at all	4	2
1 year or less	7	3
2 years	57	25
A few years	2	1
5 years	9	4
10 years	2	1
Permanently	126	56
Other	6	3
Don't know	11	5
Column Total	224	100

Table 16. Willing to Separate Newspaper from Garbage

	City		Pilot[1]	
	#	%	#	%
Yes	165	74	695	84
Perhaps	0	0	37	5
No	51	23	91	11
Other	8	4	0	0
Column Total	224	100	823	100

[1]In the Pilot survey, respondents were asked if they would be willing to separate collectibles from garbage.

Table 17. Willing to Separate Collectibles from Garbage

	Glass		Plastic		Metal	
	#	%	#	%	#	%
Yes	166	74	166	74	154	69
No	54	24	53	24	62	28
Other	4	2	5	2	8	4
Column Total	224	100	224	100	224	100

Table 18. Reasons why respondents would not process recyclables

	Paper #	Glass #	Plastic #	Metal #	Total Persons #
Don't have papers	4				4
Don't have pop bottles		1	1		1
Will separate, not rinse		2	3	3	3
Will separate, not store				1	1
Separate colored glass		1			1
Accept all paper	1				1
Ban inserts	1				1
Not enough perseverance	1			1	2
Question value of program			1	1	1
Concern re health & safety				2	2
Need more information	1				1
Total responses - 25	8	4	5	8	
Total respondents					17

Table 19. Where Container Would be Kept

	City		Pilot	
	#	%	#	%
Don't want it	11	5	96	12
Kitchen	16	7	46	6
Basement	8	4	77	9
Garage	67	30	262	32
Balcony	2	1	4	1
Back yard	85	38	200	24
Other	27	12	81	16
No reply	8	4		
Don't know			10	1
Column Total	224	100	822	100

Table 20. Property Tax Support for Recycling

	City		Pilot	
	#	%	#	%
Yes	98	44	378	46
No	89	40	224	27
Other	37	17	152	19
Don't know			69	8
Column Total	224	100	823	100

Table 21. Property Tax Value of Recycling

	City		Pilot	
	#	%	#	%
$5 per month	32	33	80	21
> $5 per month	5	5	17	5
< $5 per month	21	21	79	21
$1 or less	23	24	53	14
No increase			12	3
Other	17	17	96	25
Don't know			41	11
Column Total	98	100	378	100

Table 22. Who Should Operate Recycling Program?

	City		Pilot	
	#	%	#	%
City	82	37	383	47
Provincial Govt.	9	4	29	4
Non-profit Corp.	29	13	86	10
Industry	65	29	204	25
Other	39	17	21	3
Combination			11	1
Don't know			89	11
Column Total	224	100	823	100

Table 23. Is Recycling Worthwhile?

	City		Pilot	
	#	%	#	%
Yes	199	89	747	91
No	10	5	18	2
Other	15	7	24	3
Don't know			34	4
Column Total	224	100	823	100

Table 24. Recycling is Worthwhile

	City		Pilot	
	#	%	#	%
Generally worthwhile	49	25	85	11
Economic benefits	36	18	125	17
Saves natural resources	19	10	68	9
Reduces waste	12	6	128	17
Materials are valuable	11	6	93	12
Reduces garbage/dumps	50	25	144	19
Improves environment	19	10	68	9
Other	3	1	35	5
No reply	0	0	1	0
Column Total	199	100	747	100

Table 25. Recycling is NOT Worthwhile

	City		Pilot	
	#	%	#	%
General	7	70	8	44
Economics	1	10	5	28
Personal reasons	1	10		
Natural resources	0	0	1	6
Other	1	10	2	11
No reply	0	0	1	11
Column Total	10	100	18	100

Table 26. 'Other' Answers on Recycling Worthwhile

	City		Pilot	
	#	%	#	%
Participation	1	7	5	9
Economic conditions	4	27	9	16
Natural resources	0	0	1	2
Personal	0	0	1	2
Other	2	14	3	5
Information problems	7	47	39	67
No reply	1	7		
Column Total	15	100	58	100

Table 27. Importance of Recycling Compared to Garbage Collection

	City		Pilot	
	#	%	#	%
Less important	61	27	253	31
More important	62	28	103	13
Same importance	97	43	430	52
Other	4	2	7	1
Don't know			28	3
Column Total	224	100	821	100